

ATTACHMENT B
Amendments to the Claims

Please cancel claims 3 and 18 without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A method for cutting and removing an underwater pipeline, the method comprising the following steps:
 - a) determining the position of the underwater pipeline to be removed;
 - b) positioning, on the pipeline, guiding means for positioning cutting means and recovery means for recovering the cut pipe sections, said guiding means being able to be repositioned along said pipeline and being stably connected to a boat intended to collect recovered sections of cut pipe;
 - c) guided positioning of the cutting means and guided positioning of the recovery means;
 - d) cutting a pipe section of predetermined length;
 - e) removing the pipe section using said recovery means;
 - f) transferring the pipe section to said boat;
 - g) repositioning the guiding means along a remaining pipeline portion to be removed and repeating steps c) to f) until the underwater pipeline has been completely removed.
2. (Currently Amended) An apparatus for implementing the method for cutting and removing underwater pipelines according to claim 1, said apparatus comprising:
 - cutting means for cutting said underwater pipelines;
 - recovery means for recovering the cut sections of the pipeline, said cutting means and said recovery means are connected;
 - guiding means for positioning said cutting means and said recovery means;

suspension means for suspending said guiding means, cutting means and recovery means, said suspension means comprises a gantry comprising two uprights and a cross member to which hoisting means for lowering and hoisting on-board said boat said guiding means; and

transferring means for transferring the recovered pipe sections to the loading compartment of a boat, said transferring means being located on a suitable support comprising a plate arranged on a deck of said boat opposite an opening formed in a stern wall thereof,

wherein said gantry being arranged on said support plate along an external edge directed towards said opening formed in the stern wall.

3. (Canceled)

4. (Currently Amended) The apparatus according to claim-32, wherein said uprights of said gantry are pivotably hinged with said support plate and provided with actuating means which allow positioning of said gantry in a substantially cantilever manner with respect to the stern wall of said boat.

5. (Currently Amended) The apparatus according to claim-32, wherein said gantry, in a vicinity of the cross member, has connected thereto, in cantilever fashion, by means of arms, a beam which is parallel to and has substantially the same length as the cross member.

6. (Previously Presented) The apparatus according to claim 5, wherein deflection pulleys for cables for suspension of the guiding means, recovery means and cutting means are arranged on the said cross member and on the beam.

7. (Currently Amended) The An apparatus according to claim 2 for implementing the method for cutting and removing underwater pipelines according to claim 1, said apparatus comprising:

cutting means for cutting said underwater pipelines;

recovery means for recovering the cut sections of the pipeline;

guiding means for positioning said cutting means and said recovery means, wherein said guiding means comprises comprising a guide unit comprising:

a support base provided with gripping means for gripping said underwater pipeline,

movement means for moving said support base along said pipeline, and

a head-piece mounted on a shaft rotating on said support base, said head-piece being provided thereon with deflecting means for deflecting a cable for connection with said suspension means, a floating body and detecting means for detecting the position of said underwater pipeline;

suspension means for suspending said guiding means, cutting means and recovery means; and

transferring means for transferring the recovered pipe sections to the loading compartment of a boat, said transferring means being located on a suitable support comprising a plate arranged on a deck of said boat opposite an opening formed in a stern wall thereof.

8. (Previously Presented) The apparatus according to claim 7, wherein said detecting means comprises at least one videocamera and a sonar.

9. (Previously Presented) The apparatus according to claim 8, wherein said head-piece is provided thereon with a compass arranged in the visual field of the videocamera.

10. (Previously Presented) The apparatus according to claim 7, wherein said shaft is located on a carriage movable in the direction of the length of said support base so as to position said head-piece at one of the two ends of said support base.

11. (Previously Presented) The apparatus according to claim 7, wherein said support base is provided, along its perimetral edges, with a plurality of nozzles oriented perpendicularly with respect to the plane of travel of the cable for suspending said guide unit and able to eject pressurised fluid supplied by suitable means.

12. (Previously Presented) The apparatus according to claim 7, wherein said gripping means comprises jaws provided with suitable actuating means arranged in said support base.

13. (Currently Amended) The apparatus according to claim 7, in which said movement means comprises elements suitable for displacement such as wheels or belts arranged along the sides of said support base with a mutual inclination preferably of 90°.

14. (Currently Amended) The An apparatus according to claim 2 for implementing the method for cutting and removing underwater pipelines according to claim 1, said apparatus comprising:

cutting means for cutting said underwater pipelines;

recovery means for recovering the cut sections of the pipeline, wherein said recovery means comprises comprising a recovery unit comprising gripping means provided with a substantially rectangular box-shaped body, said box-shaped body being connected to an upper frame in which deflecting means for deflecting a cable connected to said suspension means by means of the tie-rods are arranged;

guiding means for positioning said cutting means and said recovery means;

suspension means for suspending said guiding means, cutting means and recovery means; and

transferring means for transferring the recovered pipe sections to the loading compartment of a boat, said transferring means being located on a suitable support comprising a plate arranged on a deck of said boat opposite an opening formed in a stern wall thereof.

15. (Previously Presented) The apparatus according to claim 14, wherein said box-shaped body has arranged at one end, a beam stably connected to said box-shaped body at the ends of which two of the said tie-rods are connected, and there being arranged longitudinally with respect to said box-shaped body, a guide in which a slider is movable, said slider being associated with a trapezium perpendicular to said guide at the ends of which two more of the said tie-rods are connected.

16. (Previously Presented) The apparatus according to claim 14, wherein said upper frame is provided with two cantilever arms arranged perpendicular to the plane of travel of the cable for suspension of the recovery unit, provided with retraction means and provided at their free end with means for engagement with said guide means, which are releasable.

17. (Currently Amended) The-An apparatus according to claim 2 for implementing the method for cutting and removing underwater pipelines according to claim 1, said apparatus comprising:

cutting means for cutting said underwater pipelines, wherein said cutting means comprises comprising a cutting unit;

recovery means for recovering the cut sections of the pipeline;

guiding means for positioning said cutting means and said recovery means, wherein said cutting unit is integrally mounted with said recovery means;

suspension means for suspending said guiding means, cutting means and recovery means; and
transferring means for transferring the recovered pipe sections to the loading compartment of a boat, said transferring means being located on a suitable support comprising a plate arranged on a deck of said boat opposite an opening formed in a stern wall thereof, wherein said cutting means comprises a cutting unit.

18. (Canceled)

19. (Currently Amended) The~~An~~ apparatus according to claim 2 for implementing the method for cutting and removing underwater pipelines according to claim 1, said apparatus comprising:

cutting means for cutting said underwater pipelines;
recovery means for recovering the cut sections of the pipeline;
guiding means for positioning said cutting means and said recovery means;
suspension means for suspending said guiding means, cutting means and recovery means; and
transferring means for transferring the recovered pipe sections to the loading compartment of a boat, said transferring means being located on a suitable support comprising a plate arranged on a deck of said boat opposite an opening formed in a stern wall thereof, wherein said transferring means for transferring the recovered pipe sections comprises~~comprising~~ a pipe-guiding arm hinged with an external edge of the support plate directed towards the opening in the stern wall of the boat and provided with actuating means for moving the pipe-guiding arm from a position substantially perpendicular to the deck of the boat to a substantially parallel position and provided with means for gripping the recovered pipe section and means for slidably guiding said section.

20. (Currently Amended) The An apparatus according to claim 17 for implementing the method for cutting and removing underwater pipelines according to claim 1, said apparatus comprising:

cutting means for cutting said underwater pipelines, wherein said cutting unit comprises:

means comprising an endlessly wound diamond-coated cable deflected around a plurality of pulleys, at least one of which is motor-driven and which are arranged so as to define a cutting plane perpendicular to the underwater pipeline, said pulleys being connected to a plate mounted slidably on at least one guide and associated with actuating means for moving said plate towards and away from said underwater line.;

recovery means for recovering the cut sections of the pipeline;

guiding means for positioning said cutting means and said recovery means;

suspension means for suspending said guiding means, cutting means and recovery means; and

transferring means for transferring the recovered pipe sections to the loading compartment of a boat, said transferring means being located on a suitable support comprising a plate arranged on a deck of said boat opposite an opening formed in a stern wall thereof.